

## ABSTRACT

A data recording method according to the present invention is a method for recording data as edge position information, including marks and spaces of multiple different lengths, on a storage medium by irradiating the storage medium with a pulsed energy beam. The method includes the steps of:

(A) generating a write code sequence based on the data to be recorded; (B) determining a write pulse waveform, defining the power modulation of the energy beam, according to the code lengths of respective codes included in the write code sequence; and (C) modulating the power of the energy beam based on the write pulse waveform. If the shortest code length of the write code sequence is  $n$  (which is an integer equal to or greater than one), a write pulse waveform that has only one write pulse is assigned to recording mark making periods corresponding to codes with code lengths  $x$  of  $n$ ,  $n+1$  and  $n+2$ , and a write pulse waveform that has multiple write pulses  $P_w$  is assigned to recording mark making periods corresponding to codes with code lengths  $x$  of  $n+3$  or more.